

## REMARKS/ARGUMENTS

Claims 7, 10, and 11 are presented for reconsideration and further examination in view of the foregoing amendments and following remarks. Claim 7 has been amended, claims 8 and 9 have been cancelled without prejudice or disclaimer to the subject matter therein, and claims 1 – 7 were withdrawn in the Response to Restriction Requirement filed on May 10, 2006.

In the outstanding Office Action, the Examiner: objected to a typographical error in the specification; objected to the title; rejected claims 7 – 10 under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 6,140,763 to Hung et al. (hereinafter referred to as “Hung”); and rejected claim 11 under 35 U.S.C. 103(a) as being unpatentable over Hung.

By this Response and Amendment: claim 7 is amended; claims 8 and 9 are cancelled without prejudice or disclaimer to the subject matter therein; and the rejections under 35 U.S.C. 102(b) and 103(a) are traversed. It is respectfully submitted that the above amendments do not introduce any new matter to this application within the meaning of 35 U.S.C. 132. Support for the amendments to claim 7 may be found in Figure 3, which clearly shows that:

- alkali metal 5D is diffused in light-emitting layer 4 and low-resistance metal 5B
- low-resistance metal 5B is formed directly on the alkali metal 5D, and
- alkali metal compound layer 5D is formed directly on the light-emitting layer 4.

## OBJECTION TO THE TITLE

In the Outstanding Office Action, the Examiner objected to the title as being not descriptive, and asked that a new title be provided “that is clearly indicative of the invention to which the claims are directed.”

### **RESPONSE**

Applicant has amended the title to reflect that only claims drawn to an organic electroluminescence device remain in the application. Accordingly, withdrawal of the objection to the title is requested.

### **OBJECTION TO THE SPECIFICATION**

In the Outstanding Office Action, the Examiner objected to the specification for a typographical error on page 2, line 32.

### **RESPONSE**

Applicant has amended the specification to correct this typographical error, and submits that the specification now provides the correct spelling of the term "desiccant." Accordingly, withdrawal of the objection to the specification is requested.

### **REJECTIONS UNDER 35 U.S.C. 102(b)**

In the outstanding Office Action, the Examiner rejected claims 7 – 10 under 35 U.S.C. 102(b) as being anticipated by Hung

### **RESPONSE**

By this Response and Amendment, applicants traverse the Examiner's rejection. Reconsideration and withdrawal of the rejections are respectfully requested.

For a reference to anticipate an invention, all of the elements of that invention must be present in the reference. The test for anticipation under section 102 is whether each and every element as set forth in the claim is found, either expressly or inherently, in a single prior art

reference. *Verdegaal Bros. v. Union Oil Co. of California*, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987); MPEP §2131. The identical invention must be shown in as complete detail as is contained in the claim. *Richardson v. Suzuki Motor Co.*, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989); MPEP §2131.

Applicants submit that all of the features of the presently claimed invention are not disclosed, taught or suggested in the cited single reference.

Independent claim 7 has been amended, and now teaches, *inter alia*, “an organic electroluminescence device comprising: an anode layer formed on a substrate; an organic layer which is formed on the anode layer and includes a light-emitting layer; and a cathode layer having *an alkali metal compound layer... formed directly on the light-emitting layer*; ... wherein *both of the light-emitting layer and the low electric resistance metal layer enable the Cs to be diffused.*” (Present Application, Claim 7, emphasis added).

Hung is drawn to an organic light-emitting device including an organic-light emitting structure, a cathode buffer layer disposed over the organic light-emitting structure, and a cathode disposed over the cathode buffer layer and provided with an electron-injecting dopant which diffuses across the buffer layer. (Hung, Abstract)

Hung fails to disclose, teach, or suggest “a light-emitting layer; and a cathode layer having *an alkali metal compound layer... formed directly on the light-emitting layer*” (Present Application, Claim 7, emphasis added). Even if *arguendo* Hung’s cathode layer 310 were to correspond to the Present Application’s “cathode layer having an alkali metal compound layer...and a low electric resistance metal layer...[which] enable[s] the Cs to be diffused” (Present Application, Claim 7), Hung’s cathode layer 310 is formed on the cathode buffer layer 330, which in turn is formed on the light-emitting structure 320 (as shown in Hung’s Fig. 3). Hung specifically teaches away from forming the cathode layer 310 directly on the light-emitting layer:

“it is an object of the present invention to provide an organic cathode buffer layer over the organic light-emitting structure as a protection layer against damage during high energy deposition of a cathode over the buffer layer.” (Hung, Summary of the Invention, para. 2)

Accordingly, as Hung fails to disclose, teach, or suggest “a light-emitting layer; and a cathode layer having *an alkali metal compound layer... formed directly on the light-emitting layer*” (Present Application, Claim 7, emphasis added), Applicants submit that Hung does not anticipate the presently claimed invention.

Moreover, Hung fails to disclose, teach, or suggest that “both of the light-emitting layer and the low electric resistance metal layer enable the Cs to be diffused.” (Present Application, Claim 7). In Hung, an electron-injection dopant 312 can be diffused in the cathode buffer layer 330 to provide an interfacial electron-injection layer 340, but cannot be diffused in the light-emitting layer 320.

As set forth in Hung, col 10, lines 27 – 35,

the cathode 310 (410) contains a low work function cathode material selected from materials *at least a portion of which can diffuse from the cathode 310 (410) and across the organic cathode buffer layer 330 (430)* so as to provide an interfacial electron-injecting layer 340 (440) at an interface 328 (428) between the electron-transporting layer 326 (426) of the light-emitting structure 320 (420) and the cathode buffer layer 330 (430).

(emphasis added). Also in Hung, col. 10, lines 51 – 62,

the interfacial electron-injecting layer 340 (440) can be as thin as a few atomic monolayers of the electron-injecting dopant to provide effective electron injection into the organic electron-transporting layer 326 (426) at the interface 328 (428), when the cathode is biased at a more negative electrical potential with respect to the anode. *Such interfacial electron-injecting layers can be readily achieved by diffusion of only a portion of the dopant 312 (412) from the cathode 310 (410) across the cathode buffer layer 330 (430)* if the electron-injecting dopant material is provided in the cathode at a concentration in a preferred range of 0.5-10 atomic weight percent.

(emphasis added).

Hung makes no mention of a light-emitting layer which enables a dopant to be diffused across the layer.

Accordingly, as Hung fails to disclose, teach, or suggest that “both of the light-emitting layer and the low electric resistance metal layer enable the Cs to be diffused.”

(Present Application, Claim 7), applicants submit that Hung does not anticipate the presently claimed invention.

As the single cited prior art fails to disclose, teach, or suggest all of the features of independent claim 7, and of claim 10 dependent therefrom, applicants request that the Examiner reconsider and withdraw the rejections under 35 U.S.C. 102(b) of these claims.

Applicants submit that the rejections of claims 8 and 9 have been obviated by the cancellation of these claims, which is made without prejudice or disclaimer to the subject matter therein.

#### **REJECTIONS UNDER 35 U.S.C. 103(a)**

In the outstanding Office Action, the Examiner rejected claim 11 under 35 U.S.C. 103(a) as being unpatentable over Hung.

#### **RESPONSE**

The Examiner’s rejection is traversed. Reconsideration and withdrawal of the rejection are requested.

Claim 11 depends from independent claim 7, and thereby necessarily includes all of the features of claim 7. As set forth above, Applicants submit that claim 7 is neither anticipated now

rendered obvious by Hung, and is thus in condition for allowance. Accordingly, applicants submit that claim 11 is in condition for allowance, and ask that the Examiner reconsider and withdraw the rejection of claim 11.

### CONCLUSION

In light of the foregoing, Applicants submit that the application is now in condition for allowance. If the Examiner believes the application is not in condition for allowance, Applicants respectfully request that the Examiner contact the undersigned attorney if it is believed that such contact will expedite the prosecution of the application.

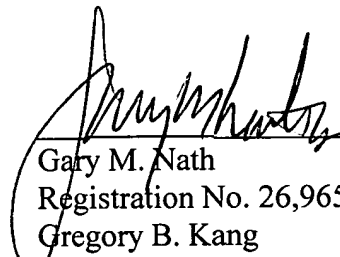
In the event this paper is not timely filed, Applicants petition for an appropriate extension of time. Please charge any fee deficiency or credit any overpayment to Deposit Account No. 14-0112.

Respectfully submitted,

**NATH & ASSOCIATES PLLC**

Date: October 30, 2006

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